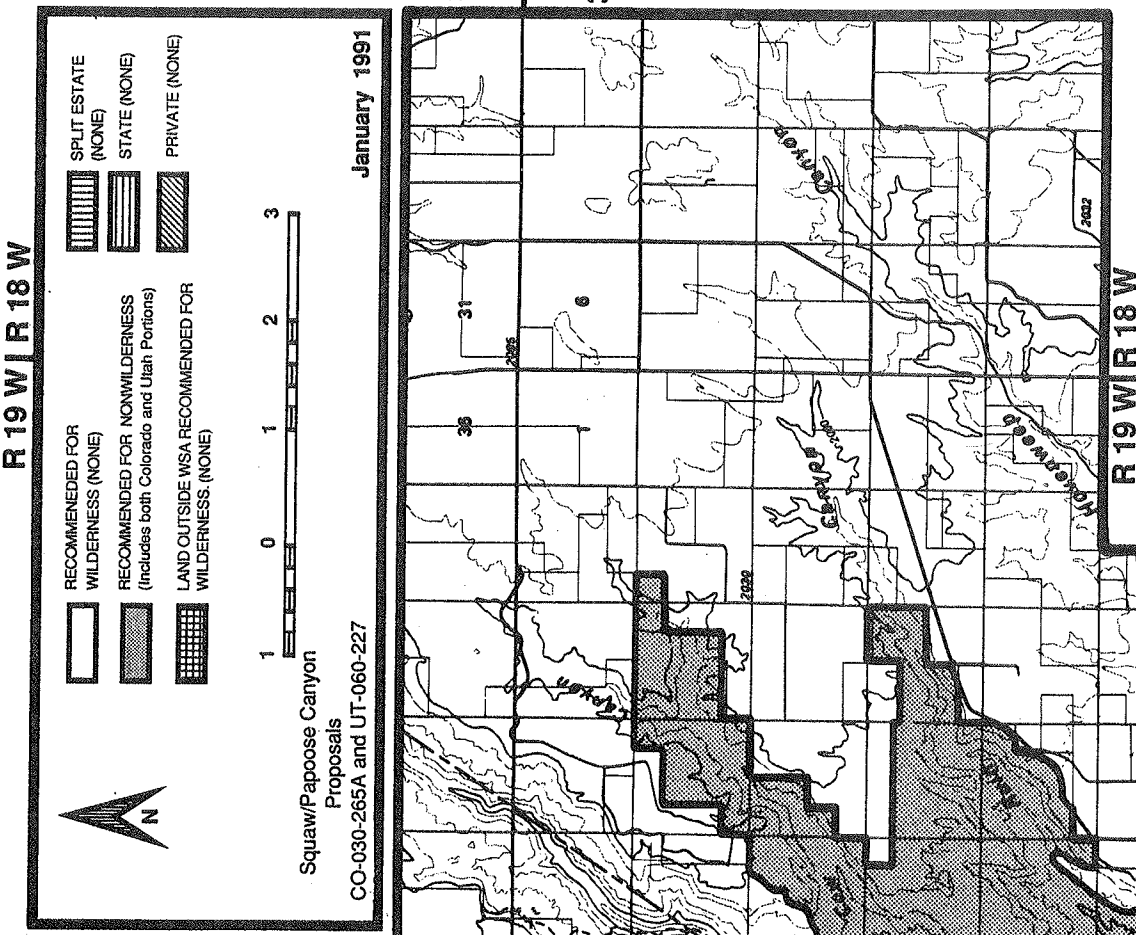
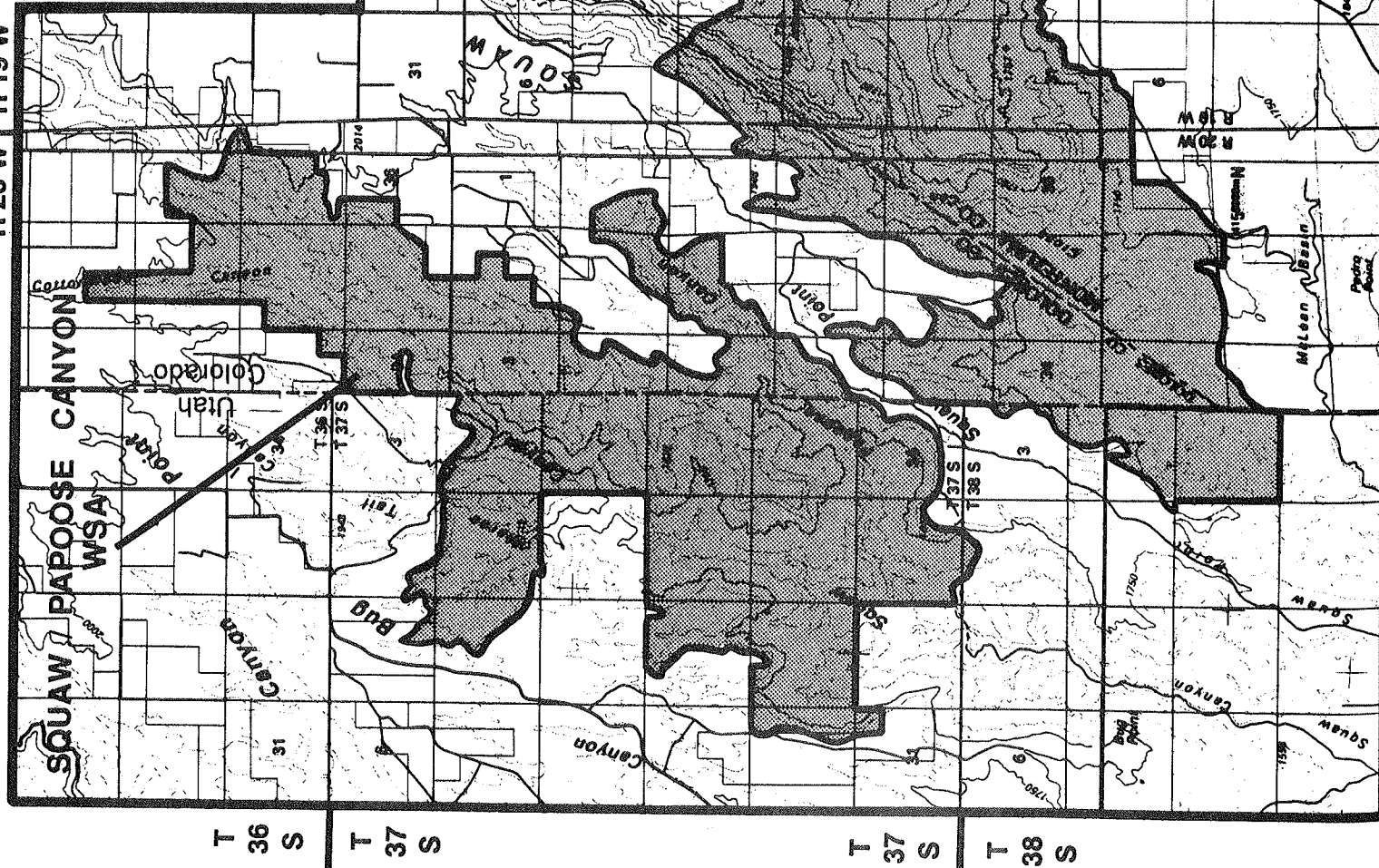


**Squaw/Papoose Canyon  
Wilderness Study Area**

# WELFARE



# SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

**THE STUDY AREA:** 17,682 acres

The Squaw/Papoose WSA (CO-030-265A and UT-060-277) is located in Dolores County, Colorado (4,611 acres) and San Juan County, Utah (6,676 acres). The area is approximately 12 miles southwest of Dove Creek, Colorado, 5 miles west of Lowry Pueblo Ruins National Historic Landmark and about 8 miles north of Hovenweep National Monument. There are no inholdings in this WSA; all 11,287 acres are BLM (see Table 1). The area centers on Squaw and Papoose Canyons and the narrow mesa that separates the two canyons. The boundary extends southwest, down-canyon to the point where a road visually impacts the area and Utah State land is encountered. Boundaries extend north and east, up-canyon only to the point in both canyons where oil and gas pads, roads or private property and associated development and agriculture are encountered. For the most part, lateral boundaries are the canyon walls. The WSA is surrounded by a mixture of public and private land. The area is shown on the map.

The topography of the WSA includes portions of two main canyons (Squaw, Papoose) and several smaller side drainages. The perennial stream of Squaw Canyon enters the WSA at 6,400 feet and the intermittent Papoose enters at 6,200 feet. The canyon/stream systems join and leave the WSA as one perennial drainage at 5,300 feet. The relatively flat plateau through which these canyons are cut has a gentle southwest down-tilt from its 6,600 feet elevation at the north-east boundary of the WSA. Numerous ledges, rock outcrops, and cliffs are exposed in the stair-stepped canyons which are 600 to 700 feet deep for most of the WSA. Vegetation is thick pinyon pine-juniper woodland on the slopes and canyon rim, with sage parks and riparian growth along the canyon bottom. Also present in Squaw/Papoose Canyon WSA are numerous and significant archaeological sites related to the Anasazi culture--communities of prehistoric farmers who lived in earthen and stone structures, 6-20 centuries ago.

**TABLE 1**  
**LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA**

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	11,287
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	11,287
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	11,287
Split-Estate	0
Total BLM land not recommended for wilderness	11,287
In-holdings (State, Private)	0

Source: BLM File Data

**SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA**

**TABLE 1 (Continued)  
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA**

<b>UTAH</b>	
<b>WITHIN THE WSA</b>	<b>ACRES</b>
BLM (surface and subsurface)	6,676
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
<b>Total</b>	<b>6,676</b>
<b>WITHIN THE RECOMMENDED WILDERNESS BOUNDARY</b>	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
<b>Total BLM land recommended for wilderness</b>	<b>0</b>
In-holdings (State, private)	0
<b>WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS</b>	
BLM	6,676
Split-Estate	0
<b>Total BLM land not recommended for wilderness</b>	<b>6,676</b>
In-holdings (State, Private)	0
<b>COLORADO</b>	
<b>WITHIN THE WSA</b>	<b>ACRES</b>
BLM (surface and subsurface)	4,611
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
<b>Total</b>	<b>4,611</b>
<b>WITHIN THE RECOMMENDED WILDERNESS BOUNDARY</b>	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
<b>Total BLM land recommended for wilderness</b>	<b>0</b>
In-holdings (State, private)	0
<b>WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS</b>	
BLM	4,611
Split-Estate	0
<b>Total BLM land not recommended for wilderness</b>	<b>4,611</b>
In-holdings (State, Private)	0

Source: BLM File Data

## SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

The WSA was studied under section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the San Juan/San Miguel Planning Area Final Wilderness Environmental Impact Statement published November, 1990. Three alternatives were analyzed in the EIS: all wilderness (11,287 acres), partial wilderness (9,933 acres included and 1,354 acres deleted), and a no wilderness alternative which is the recommendation of this report.

### RECOMMENDATION AND RATIONALE

0 acres  
(recommended for wilderness)

11,287 acres  
(recommended for nonwilderness)

The recommendation is to not designate Squaw/Papoose Canyon WSA as wilderness and to release the area for uses other than wilderness. The all wilderness alternative is the environmentally preferable alternative since its implementation would result in the least change to the natural environment over the long term.

The primary reason for the no wilderness recommendation is the existence of 6 oil and gas leases dating from before the FLPMA of 1976 (pre-FLPMA oil and gas leases). Pre-FLPMA leases are not subject to the regulations that FLPMA created and therefore lease holders could develop these leases by building a road to, drilling from, and occupying a drill pad, all on the ground-surface of the lease. These six leases comprise 1,586 acres or 14 percent of the total acreage in the WSA. The leases are consolidated by unit agreements with producing leases outside the WSA - "held by production" - they will not expire as long as other wells in the unit agreement are producing. Even though the leases are held by production and extensive seismic exploration has been done in the WSA, no development of these leases has occurred, even in years of high oil and gas prices. Squaw/Papoose is not a Known Geologic Structure (KGS); an area of known production of oil and gas. It may be that even if oil and gas are present, profitable recovery is not possible, but it cannot be assumed that these leases will never be developed.

Because the leases are pre-FLPMA, and "no surface occupancy" stipulations cannot be imposed, management to preserve the wilderness characteristics of

the Squaw/Papoose WSA would be complex, difficult, and expensive. It is estimated that a total of 31 acres of surface disturbance in 1 to 2-acre scattered parcels (drill pads access roads) would occur if all 6 leases were developed. Some of the drill pads might be located within the canyon itself which would visually impact a large area, not just the directly disturbed small parcels. Solitude, naturalness, and opportunity for primitive and unconfined recreation would all be impacted in an estimated 410 acres of the WSA because of the sights and sounds of well site construction.

Under the current management plan for the Colorado portion of the WSA, BLM does require that there be no long-term visual impairment of the area by lease development. Because of the rugged, rocky topography and old growth pinyon-juniper woodland, total and acceptable reclamation can be a long and expensive process requiring great effort by both the lease holder and BLM. As a result of these stringent restrictions, the lease holder may find it to be more economical to use directional drilling (slant drilling) from outside the WSA boundary to hit a target under the WSA. It is estimated that 80 percent of the carbon dioxide, oil and gas reserves could be recovered using direction drilling techniques, given current technology and market conditions. But it cannot be assumed that directional drilling would be the method employed in any of the leases as this method is not actually stipulated in the pre-FLPMA lease agreement.

An additional reason for the no wilderness recommendation is that wilderness management of Squaw/Papoose would be made difficult by the inclusion in the WSA of several parcels of land (1,354 total acres) which are up on and extend away from the canyon rim on the periphery of the WSA. The wilderness inventory process identified roadless natural areas which resulted in the 11,287 acre Squaw/Papoose Canyon WSA. This roadless area included several undisturbed yet flat land parcels which extend away from the canyon rims and abut roads, chainings, and cultivated fields. These parcels have a lowered wilderness quality and an increased potential for management conflicts due to sights and sounds of road traffic, the working of farm machinery, and other peripheral non-wilderness uses such as trespass firewood cutting and illegal dumping.

## SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

### CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

#### Wilderness Characteristics

##### Naturalness

The Squaw/Papoose WSA is predominantly natural in character with negligible human imprints. The dominant natural feature of this area is the confluence of two deep, nearly parallel canyons (Squaw and Papoose), plus numerous smaller tributary canyons that have been cut by water-flow erosion into the Morrison Formation and Dakota Sandstone. The stair-step canyon slopes range in depth from 300 to 700 feet and are marked by shallow, rocky soils, numerous rock outcrops, and talus slopes. Sandstone cliffs and ledges line the canyon rims. Winding canyon bottoms support riparian vegetation including cottonwood, sedges, rushes, cattail, willow, tamarisk and various shrubs. Dense pinyon-juniper woodland dominate the canyon sides and rim with sage and shrub understory including mormon tea, mountain mahogany, rabbitbrush, cliffrose and antelope bitterbrush.

Although the ecosystem of Squaw/Papoose WSA is in some respects similar to that of other canyons in the region, when considered in the context of the surrounding lands, these WSA canyons take on a greater ecological significance. The plain-like highlands above the canyons were once covered by expansive pinyon-juniper forests, but most of that semi-desert forest habitat has been radically modified in the last century. Nearly all of the private land in the area is now cultivated for dryland farming of beans, wheat and alfalfa. Much of the public land has been chained--the pygmy evergreen forest removed in hopes of improving the range for domestic livestock grazing. The result has been the elimination of much of the natural flora in the region. The rugged, nearly inaccessible canyons in this area however, were left untouched and constitute refuges where indigenous flora and fauna are still abundant.

In addition, the riparian communities found in the canyon bottoms play a crucial role in arid ecosystems. They provide water and cover as well as a travel corridor for animals such as mule deer, that summer in higher country but winter in the canyons. Black bear, mountain lion, coyote, grey fox and bobcat also use these canyon refuges, some as home territory and others as seasonal range. The riparian plant communities also

support a diversity of animals that would otherwise not exist in the area, such as shorebirds and passerine birds that nest in and migrate through the canyons and small mammals, such as beaver, badger, and long-tailed weasel.

Rocky cliffs in the canyons offer nesting sites for raptors such as red-tailed and Cooper's hawks, various owls, golden eagles and prairie falcons. Two endangered raptors, the peregrine falcon and the bald eagle have been sighted in the WSA and, although neither nests there, it appears that falcons and wintering bald eagles do utilize habitat in the area. Squaw/Papoose contains potential habitat for the BLM sensitive and federal candidate species Astragalus naturitensis (Naturita milkvetch).

One old, eroded and impassable vehicle way and an old fence line are the only imprints of modern-man. These impacts are revegetating and are screened by the surrounding pinyon-juniper woodland--they do not significantly impair the naturalness of the area.

##### Solitude

Topographic and vegetative screening combine to provide outstanding solitude opportunities throughout the canyons of the WSA. The mesa-top parcels of the WSA (see Recommendation and Rationale), are undisturbed and therefore offer natural vegetation screening but because of the flat topography and nearness to heavily impacted areas outside the WSA, do offer a wilderness quality and solitude of lesser value than that of the canyons. In the canyon, rugged terrain, stair-stepped deep winding canyons, numerous rock outcrops, and boulder strewn slopes provide topographic screening. The dense cover of pinyon-juniper on the slopes and canyon rims plus riparian growth in the canyon bottoms provide vegetative screening. The canyon-interior configuration of this WSA gives the visitor a feeling of isolation from the sights and sounds of human activity outside the canyon.

##### Primitive and Unconfined Recreation

The Squaw/Papoose Canyon WSA provides outstanding opportunities for primitive and unconfined recreation. The canyon bottoms provide routes for hiking or horseback riding; the area's geological and archaeological features and wildlife offer scenic subject matter for photography and sightseeing; the rugged canyon slopes are a challenge for climbing and rock scrambling; and hunting is a his-

## SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

toric use. Numerous secluded camping spots are available. From a mesa or cliff-top, the panorama is of the canyons themselves as well as other striking landforms in the area such as the Abajo Mountains to the northwest and Sleeping Ute Mountain to the southeast. The dark green woodland and contrasting tan, gray, and black stained cliffs provide a scenic backdrop for all recreation activities.

### Special Features

Even though a very small percentage of the Squaw/Papoose acreage has been intensively inventoried, it is known that the area has a high archaeological site density. The area was heavily used by the Anasazi culture from A.D. 450 to 1300. Anasazi pueblo habitation sites, rock shelters, masonry granaries, tool processing sites and water control devices are numerous. These sites are isolated from access and therefore have not yet been impacted by collectors and vandals. The interpretative and scientific potential of this canyon is as yet untapped.

In Colorado, the Squaw/Papoose Canyon WSA is managed as a Cultural Resource Emphasis Area within the Anasazi Culture Multiple Use Area of Critical Environmental Concern (internal BLM designation, 1986). Management direction prioritizes the preservation and enhancement of the cultural resource properties found within the area.

Emphasis is focused on measures needed to protect the soil, vegetation, scenic, cultural, and wildlife resources and thereby the entire cultural resource setting.

Geological formations are well exposed for scientific and educational study: the Summerville and Morrison Formations of the Jurassic Period outcrop and are overlain by Burro Canyon and Dakota Formations of the Upper Cretaceous. The Morrison is rich in fossilized wood, plant remains and fossil vertebrate bones. These values are important to many recreation users who note that such a combination of archaeological and educational values, scenic beauty and ruggedness can be found in few places.

### Diversity in the National Wilderness Preservation System

#### Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of this WSA would not add a new ecosystem or landform to the NWPS. The WSA is in the Colorado Plateau Province (Bailey-Kuchler classification system) and contains pinyon-juniper woodland vegetation type (11,287 acres). The pinyon-juniper woodland ecosystem is represented by only one wilderness area in Colorado; that being in Mesa Verde National Park which is closed to public recreation; and one area in Utah (Box-Death Hollow). See Table 2.

TABLE 2  
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
	AREAS	ACRES	AREAS	ACRES
BAILEY-KUCHLER CLASSIFICATION (PNV)				
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Pinyon-Juniper Woodland	11	1,401,745	85	2,142,602
COLORADO (COLORADO PLATEAU PROVINCE)				
Pinyon-Juniper Woodland	1	8,105	17	293,837

Source: BLM File Data.

## SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

### Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers:

The Squaw/Papoose Canyon WSA is not within a 5-hour drive of a major population center (Standard Metropolitan Statistical Area).

### Balancing the geographic distribution of wilderness areas:

The Squaw/Papoose Canyon WSA would contribute to balancing the geographic distribution of areas within the NWPS. The nearest designated wilderness area (Mesa Verde National Park Wilderness; 8,205 acres) is approximately 1.5 hours to the southeast. Mesa Verde Wilderness is not open to the public due to important archaeological values. Two and one-half hours to the east of Squaw/Papoose is Forest Service Lizard Head (41,189 acres) and Mt. Sneffels (16,210 acres) Wilderness Areas; areas of high mountain landform and ecosystem and thereby unavailable for most public use during winter and spring. Two hours to the north is the BLM Dolores River Canyon WSA which contains 29,415 acres recommended for wilderness designation. Because of its year-round accessibility and Colorado Plateau ecosystem, Squaw/Papoose Canyon WSA would expand and balance opportunities to attain diverse wilderness experiences.

### Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The Squaw/Papoose Canyon WSA could be effectively managed to preserve its wilderness character yet complex and expensive management problems could occur in two areas: management conflicts associated with 6 pre-FLPMA oil and gas leases and management problems with the peripheral, flat land parcels (see Recommendations and Rationale). The Squaw/Papoose Canyon EIS included a partial wilderness alternative which would enhance the manageability of this WSA. This alternative discussed deleting the several flat-land parcels (1,354 total acres), conforming the WSA boundary to the more easily identifiable canyon rim and thereby enhancing the manageability of the area. Two of the six pre-FLPMA oil and gas leases are totally included within these peripheral parcels therefore deletion of these parcels would greatly reduce potential wilderness management problems associat-

ed with possible lease development. In addition, the then remaining four leases are in a very narrow section of the WSA which would allow for efficient reserve recovery using slant drilling from outside the WSA.

There are no other major manageability problems or resource conflicts which would result from wilderness designation. The entire WSA is BLM land; no inholdings. There are no patented mining claims within the WSA but there are 22 unpatented post-FLPMA mining claims, most likely for uranium. Since the GEM report for Squaw/Papoose Canyon shows only moderate favorability of uranium occurrence and no known deposits of uranium exist, and because these claims and all future claims are subject to FLPMA generated guidelines, site disturbance associated with access and development of these claims is unlikely (see Energy and Mineral Resource Values section below). The WSA contains portions of two grazing allotments administered in Utah and portions of three allotments administered in Colorado. There are approximately 455 animal unit months (AUMs) in use throughout the entire WSA and no range improvement projects have been proposed.

### Energy and Mineral Resource Values

Squaw/Papoose Canyon energy and mineral resources were evaluated in "GEM Geological, Energy, and Minerals: Resource Assessment for Region 4, Colorado Plateau" - submitted to BLM by Mountain States Mineral Enterprises Inc. in May 1983, and the "Mineral Summaries", prepared for BLM by the U.S. Geological Survey and Bureau of Mines in February 1990. Extensive seismic testing has been done in and around the WSA; all in a nonimpairing manner mostly by helicopter or on foot.

Hydrocarbons (oil, gas, carbon dioxide, helium): No known deposits but a high potential that these resources could be found in the WSA; accessibility and economic potential are rated good (GEM page 111-7). There are no known deposits of coal in Squaw/Papoose WSA. There is a low potential that coal is present with accessibility and economic potential unknown.

Energy and related minerals (uranium and vanadium): No known deposits in the WSA with a moderate potential for existence; therefore, accessibility and economic potential are unknown.



## SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

Precious and base metals (copper, gold, silver, lead, zinc): No known deposits and no potential that deposits exist.

Clays and cut sandstone: No known deposits, but a high probability that deposits exist. However, accessibility and economic potential are listed at low to moderate.

In summary, there is no present production of any mineral, oil or gas within the WSA, although there are two producing oil wells near the WSA boundary. Existence and quantity of these resources is unknown but potential for occurrence is moderate to high.

### Impacts on Resources

The comparative impacts table (Table 3) summarizes the effects on pertinent resources for the three alternatives considered for this WSA.

### Local Social and Economic Considerations

Designation or nondesignation of this WSA as wilderness would have negligible impacts on local economic conditions. Social factors were not considered a significant issue in the study.

### Summary of WSA Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Certain comments received during the inventory process and early stages of the Draft EIS were used to develop significant study issues and various alternatives for the ultimate management of those lands with wilderness values. Of the 27 public comments received during the inventory phase; 13 favored WSA designation and 14 were opposed to WSA designation. Of these 14, most pointed out impacts of man which they felt interfered with wilderness characteristics of the area. BLM used this information in eliminating impacted areas and developing boundaries which give the WSA its primarily natural character.

During formal public review of the Draft EIS, a total of 99 comments were received which specifically addressed this WSA--55 were written and 44 were oral statements received at public hearings. In general, 94 commenters supported wilderness designation and five favored releasing the area for other uses (no wilderness). Specific comments by those favoring wilderness designation centered on the preservation of archaeo-

logical values. Protection of ecological diversity and geologic beauty were also major concerns. Wildlife and saving a vanishing reserve of scientific and educational value for future generations were both mentioned in several comments.

Those opposing wilderness designation were concerned that wilderness would preclude mineral development and grazing or that the area does not have wilderness characteristics. No comments specifically addressing this WSA were received from Federal, state, or local agencies.

SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

TABLE 3  
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Wilderness Values	Wilderness values would remain largely unchanged on 10,846 acres under this alternative. However, surface disturbance (31 acres) and impacts from sights and sounds (410 acres) from seismic exploration and wildcat well development would diminish the wilderness values on these 441 acres.	Wilderness designation would provide long-term protection for wilderness values on 11,287 acres. Natural and supplemental values would be maintained by the restrictions to motorized recreational use and mineral development. There would be short-term impacts on 146 acres associated with seismic work and last drilling. However, these disturbances would be reclaimed and substantially unnoticeable after 2 years. Opportunities for solitude and primitive, unconfined recreation would be maintained because the anticipated increase in visitor use associated with wilderness designation is incidental.	Under this alternative, the wilderness values in the 9,933 acres designated as suitable for wilderness would be protected. There would be short-term impacts on 291 acres associated with seismic work and test well drilling. However, these disturbances would be reclaimed and substantially unnoticeable after 2 years. Opportunities for primitive, unconfined recreation would be preserved. The wilderness values in most of the remaining 1,354 acres designated as nonsuitable would be protected by the ORV closure. 655 acres of the remaining 1,354 acres designated as nonsuitable would be protected by the NSO stipulation. This area is expected to remain largely unchanged over the long-term.

SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

TABLE 3 (Continued)  
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Cultural Resources	<p>Under this alternative, the cultural resources in the Colorado portion of the WSA would be protected by provisions in the ACEC plan which provide for protection of all sites and stabilization or recovery of information from 84 sites. In addition, cultural resources in this area will be protected through increased knowledge and management presence, as well as by management restrictions on motorized vehicle use and by an NSO stipulation on 4,026 acres. Cultural resources on the remaining 6,676 acres in Utah are expected to remain largely unchanged.</p>	<p>Under this alternative, the cultural resources in the WSA would be protected by wilderness management and by the ACEC plan which provides for protection for all sites and stabilization or recovery of information from 84 sites. These protective measures would be further supported by the WSA-wide exclusion of motorized recreational use and by the mineral withdrawal. As such, this alternative would provide comprehensive protection for the cultural resources in the entire 11,287 acre WSA.</p>	<p>Under this alternative, cultural resources on 11,142 acres would be protected, either by wilderness designation or ORV closure. Cultural resources on the remaining 145 acres would remain largely unchanged.</p>
Impacts on Recreational Opportunities and Use	<p>Recreational use would remain at 400 user days per year under this alternative. Excellent opportunities for most back country recreational activities would continue to exist for most of the WSA.</p>	<p>Under this alternative, recreational use would increase slightly over a 3 to 5 year period. However, this increase would be so incidental that it would not affect the character of recreation use in this area. Over the long-term, excellent opportunities will be preserved for non-motorized, back country recreational activities by eliminating motorized recreational use and mineral development.</p>	<p>Under this alternative, recreational use would increase slightly over a 3 to 5 year period. However this increase would be so incidental that it would not affect the character of recreation use in this area. Over the long-term, excellent opportunities will be preserved for non-motorized recreational use.</p>

SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

TABLE 3 (Continued)  
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Mineral Exploration and Production	One projected successful well in the WSA could produce about 200 bbls of oil and 800 mcf of gas per day during the next 20 years. This well represents 2.5 percent of the 40 new wells projected to be drilled and producible within Colorado's Paradox Basin in the next 20 years. In addition, it is projected that 75 percent of the recoverable reserves would be produced over time, mostly from more favorable well sites outside the WSA through directional drilling.	Although some exploration will occur, production of energy or minerals will not occur from within the WSA. However, it is projected that 60 percent of the recoverable reserves would be produced over time by directional drilling from outside the WSA.	Under the Partial Wilderness Alternative, even though exploration will occur, production of energy or minerals will not occur from within the WSA. However, it is projected that 65 percent of the recoverable reserves would be produced over time by directional drilling the pre-FLPMA leases from outside the WSA.